Notes from
Europe
1950

RECORD

R. A. Blakelock Kew
Enonymous - has manuscript

Kew — June, 1950

Cremolobus

bolivianus — Rusby 1816

Siliques glabrous, pedicels pubescent with stiff hairs.

Mandon 909 bis — prov. Larecaja, Parychani June, 1860 — appears to be same as above but there is a very slight pubescence on the siliquives

C. humilis

pennell 13223

C. Paponii

Stork 11441

C. peruvianus

Fragment including fruits — stipe ca. 2 mm. long, wings 3-4 mm, the whole glabrous, pedicel minutely pubescent

C. pinnatifidus

Note by J. Ball " Cr. pinnatifidus Hook. Ic. pl. 100 is quite the same as C. parviflorus Wedd. Ann. Sc. ~~Nat~~ Nat. Ser. V. Vol 1. p. 283 not chlor. Andina III as wrongly cited by Walpers. The breadth of the wings of the silicula varies in this & the allied species. Crem. rhomboidius Hook. Icon.

32 & Crem. ♀ sinuatus Hook. Icon. 99 both sent by Jameson from the Cuesta of Purruchuco are undoubtedly the same plant the siliculæ in the former very poor and depauperate specimen being quite wingless".

Another note also by Bell, "There is only a single spec. in Herb. Kew of true Cremolobus pinnatifida Hook. (from Matthews). The others collected by McIvean are referred by A. Gr. Bot. of W. Expl. Exped. nevertheless they agree much more closely with his aphanopterus loc. cit. 1, 55 than with the Hookerian type - mine also must be referred to the latter as a variety of pinnatifidus differing only in the left developed wing of the silicule —

Some of my specimens nearer pinnatifidus others nearly aphanopterus. Gray's var B cannot stand as the leaves vary from pinnatifid to quite entire.

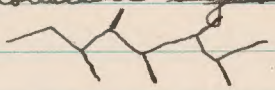
pennell 14702

Mandon 905

Matthews 590 Sunny banks. (Huamontom?) Prov. of Canta, Peru. April 1831 stems branched, more or less erect, leaves sessile, glabrous; pedicels divaricate, just under 1 cm. long; silique pendent, glabrous, stipitate.

C. pubescens

Mathews 1606 - Almirante, 1835.
Stems and leaves brown! (fuscous), densely and softly pubescent with large trichomes (the trichom are brown and tuft-like in appearance. They are dendritic but with several main shafts from the base. Branches bearing the inflorescence coming off the main stems at right angles. Rachis of the inflorescence ~~sigmoid~~



pubescence extending to the pedicels, fruits glabrous.

C. rhombifolius

Mathews 1061 - Cuesta de Purruchucu
leaves sub-opposite, ~~the first pair 1/2 to 1 1/2 cm. above the~~ easily shed, herbs. pedicels 1.5 cm. long in the type, plants glabrous throughout. leaves very thin. Siliques developing wings and these crenate ξ.

Menonvillea

M. aptera ph. ✓
Johnston 5640
Wendermann 835 ✓ - looks very much like the Johnston specimen

M. comberi - Comber 914 - "Annual on from loose sandy soil in open places. Flowers pure white sweet scented leaves soft, greenish or reddish"
looks like a perennial, leaves cuneate, crowded at base; stems up to 1 dm. but not fully elongated; fls. very numerous; pubescence simple, extending to sepals and fruit.

M. filifolia:
Specimen in herb. Kew has a label printed "Ex horto bot. petropolitano" with a small sticker pasted on reading "Received Nov. 1867". The name on the label "Menonvillea filifolia F. & M." appears to be in Fischer's handwriting. There is no other information on the sheet, but it is probably an isotype. This specimen is the same as one marked in pencil Cuming 889 (also at Kew) - Hooker, the Cuming 889 noted below as mr. Regis ex H.K.
The leaves are linear, the lower ones often lobed, stems branched above, the whole plant is glabrous, the fruit is slightly stipitate, outer sepals saccate; petals narrow, ca. 1 cm. long.

M. flexuosa "valle del Yeso, Prov. Santiago, Jan. 1866" No indication of collector. a printed label reads "Herbarium chilense. Purchased of Mr. E.C. Reed, Dec. 1873".

Stem definitely flexuose, plant looks perennial though roots lacking, considerably branched 4-6 dm. high; leaves linear, lower ones deeply lobed with linear lobes 3-4 cm. long; whole plant glabrous, inflorescence ca. 1 dm. long; pedicels 3-10 mm.; fruits definitely winged, 5-7 mm. diam. with a sinus above + below, nearly orbicular; outer sepals saccate, petals oblong, 6-8 mm. long.

M. chilensis "Concepcion, Bridges 1279"

looks like an annual, stems much branched, glabrous, 3-4 dm. high, glabrous; leaves linear, lower with long linear lobes; inflorescence ca. 1 dm. long; pedicels divar. 5-8 mm.; siliques broadly oblong, ca. 4 mm. long, slightly winged, with a row of tuberculate swellings on each side of the ~~septum~~ rib, scales present inside the tubercles; slightly stipitate, style 1-2 mm.; flowers small, sepals 2-3 mm. long, petals narrow, almost linear not quite twice the length of the sepals.

= M. linearis

M. Bayi — ① Coquimbo, Chile, July-Aug, 1856, W. H. Harvey
labeled M. linearis var.
petals white, spatulate; siliques winged,
valve swelled and with small scales off the
rounded portion.

② "M. linearis DC. propè Coquimbo, Chili
H. Cuming 889, 1831.
1-2 dm. high, glabrous, leaves linear,
siliques winged, orbicular, ca. 4 mm. in diam.,
infl. congested, petals spatulate, 3-5 mm.
long

③ "M. Gayi Phl." Silvana". printed label
on fol. "Herb. Ball. plantae Chilenses -
comm. R. A. Philippi, Northern Chili".
Similar to the above.

M. orbiculata:

Johnston 5048 & 5515 ✓ ✓
~~Wats~~ Wedermann 391
Atacama, Chile, no date, C. Porter

M. parviflora

Johnston 5697, 5773 ✓ ✓

M. parvula Phl "Chili, Huasco" comm. R. A.
Phillippi, 1/1888
This specimen appears to be the same as
those listed under M. Bayi.

M. pinnatifida "amerig. meridle. Chili. M. Cl. Gay
Stems broken off but portions present 3-5 dm.,
pub. at nodes with a very fine white pubescence
made up of branched trichomes, branched above,
flexuose, rigid, becoming glabrous; leaves
pectinate covered with a whitish pub., pub. easily
rubbed off, divisions linear; infl. .5-1 dm.
long, flexuose; pedicels sparsely pub., 3-6 mm.
long; siliqua almost sessile, valves nerved at
center, tuberculate at edges of hump, narrowly
winged, very slightly longer than broad, ca. 4-5
mm. long, seeds present ~~in one~~ between tubercles & ~~at~~
nerve. sepals erect, sparsely pub., not noticeably
saccate, petals yellowish or whitish, linear, ca.
6-8 mm. long.

Kew

Hexaptera

cuneata "between Cortaderas and Rio de las Vacas" Cruickshanks 95. ①

Densely hairy, hairs simple, extending to calyx; petals spatulate - up to ~~1 cm.~~ 1 cm. long; illus. ok. - no fruit on type.
Note: the hairs are reflexed on leaf + stem of type.

② Johnston 6175

③ Werdermann 949

④ Puente del Inca, in vicinity of Mt. Aconcagua, Mendoza, Argentina 1903, O.A. Malme 2870a.

⑤ Atacama, Chili, R.A. Phillippi (ex herb. Ball).

H. tridens ph. "prov. de Atacama, Chili, comm. R.A. Phillippi 1/1888.

similar to Johnston 6211 & 6176 but with narrower leaves and retrorse hairs. The siliques are similarly hairy in all three specimens.

H. gussinii ① Amerig. Méridle. Chili. M. Cl. Gay
Two specimens - branched, decumbent, leaves loosely arranged, cuneate, 3-lobed or toothed, hairs simple, somewhat spaced to dense on margin and petioles; pedicels 1-1.5 cm., flrs. rather small, sepals hairy, 4-5 mm. long; petals purplish, narrow, almost linear, nearly twice the length of the

sepals; young fruits glabrous.

(2) A similar specimen is: Cord. de Doña Rosa. without date "Herb. chilense, purchased of Mr. E.C. Reed, dec. 1873".

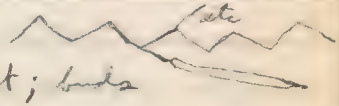
H. macrocarpa
Johnston 6058

H. pinnatifida Hilbs above the Valle andinum Concepcion | chilensium." quebrada de Rios dicta alt." original descript. apparently also based on "hills above Villavicencio, Nov. 15, 1822, Dr. Gillies.

H. spathulata "H. spathulata Hook. Bot. Misc. Gillies" Specimen consists of 2 plants (stems broken off) 2-3 cm. high, clothed with over-lapping leaf-bases; leaves hairy but not densely so - with ascending fairly long simple trichomes, these extending to the fruits slightly and to the backs of the sepals, definitely spatulate and obtuse. pedicels hairy, 1-1.5 cm. long; sepals oblong, purplish, hairs as long as the sepal width; siliques nearly sessile, pubescent between the curled wings, all six wings well-developed; style thick, ca. 2 mm. long.
Not the same species as the Bridges spec.

Kew

Matthewsia

Machaerophorus matthioloides Schlecht. now genus
Cordillera de Puno, Peru, Lechler. 1851
no. 1702.
Stem incomplete, zygote, stiff, pubescent with
minute trich. apparently caducous, ca. 4 dm.
pedicels arising at joint  ca. 1 cm. long, stout in fruit; buds
nearly 1 cm. long, sepals fully opened 1.3 cm.
long; petals linear, exceeding sepals by about
1/2 their length; siliqua linear, tapering above,
glabrous, 3-5 cm. long; style ca. 1 mm. long.
Seeds imbedded in pulpy replum.

Matthewsia aniculata Phl. Huasco Chili
[comm. R.A. Philippi 2/1885]
woolly pubescent,

① Beaver wooly, larger above on stems than
toward base, oblong but tapering above, 1-1.5
cm. long, aniculate, 3-5 mm. wide; stems
wooly, marke by prominent leaf-bases as they
are shed, slightly zygote; pedicels stout,
5-8 mm. long; siliqua wooly, lanceolate,
flattened parallel to replum; seeds in 2 rows;
sic. 1-1.5 cm. long, 4-6 mm. wide; style
nearly obsolete - barely evident.

② decertum Atacama, Chili Comm. R.A. Phillippi 2/1855.
Similar to ① but with lvs. 1–2.5 cm.; petioles more numerous and 1–1.5 cm. long. inflorescence 2–2.5 cm. long & not quite so broad; style 1 mm. long

③ Norong 1129 is not the same as either ① or ②.

④ Werdermann 422 is the same as ① i.e. the incanum plant with annulate lvs – see under M. incana. Dep. Copiapo, Quebrada Cumbres, 2000 m. IX, 1924

⑤ Bridges 1280 from Conception is the same as ②

Mathewsia foliosa Valparaiso, Bridges
① branches densely pubescent with minute hairs & tubercles but not villous, old leaves persisting much rolled & reduced; current leaves [illegible] with small incurved hairs at base, 3–6 cm. long lower ones overlapping with scattered pubescence above, upper broader, densely pubescent; petioles pubescent, straight, 4–12 mm. long; stigma glabrous with a central prominent nerve (not lengthy); 1–2.3 cm. long, 3–6 mm. wide; proportionately longer and not as broad as illustrations; style barely evident, stigma scarcely expanded.

1831

(2) Cuming 642 - Valparaiso - appears to be same

(3) Matthews 186 - near Sumana, Valp. Chile Sept. -
This specimen has the broad siliques of the stock - ca. 1 cm. longer slightly more and 5-7 mm. wide - otherwise similar to other specimens

(4) Valparaiso, Ph. Germain, anno 1856 et 1857 = same as (1)

(5) Valparaiso, philippi = (3)

(6) Amarig. meridle. chili M. A. Gay = (1)

Matthewsia incana - Werdermann 442 -
Atacama, Copiapó, Caldera, Quebrada Barros, X. 1924. ca 20 m. This spec. is quite similar to Johnston 5748 though with narrower & longer siliques.

det. by Johnston

Matthewsia nivea ← South America. R. Pearce [purchased Sept. 1864] ["up to 18 inches, yellowish brown, dry hills, Cond. 1) Copiapo, 8000 ft., Nov. 1862" throughout entire] siliques stem rather stout, 3.5 dm., tomentose with mixture of large spreading branched trich. & smaller matted dendritic trichomes; branches

entire, narrowly oblong, 1.5 - 2.5 cm. long, 3-8 mm. wide, overlapping; pedicels stout 2-3 mm. long on flowers; sepals tomentose 1 cm. long, petals broadly linear, 1.5 - 2 cm. long; young sil. tomentose, stigma virtually sessile.

Lesquerella grandiflora Texas Drummond, 1835
Third collection

This probably should be taken as the type.
The Buckley specimens referred to were
not seen, but there are specimens unlabeled
that may be these.

The Drummond plant

Stem 6 dm., evidently decumbent, fairly stout,
branched above, pubescent with coarse branched
hairs - branches of trichs. going to make ✳ or
something on that order; leaves e.g.
laciniate - dentate, oblong in outline, the
teeth acute & pointed forward, the caudine leaves
1.5 - 2 cm. long, ca. 1 cm. wide, rather densely
pubescent but not silvery at all; pedicels
slender, pubescent, straight, divaricately spreading
2 - 3 cm. long; sepals pubescent; petals
yellow, triangular obovate; silique pubescent,
glabrous, not quite erect, but with curved
upper ½ of style, there is just a suggestion
of one; ca. 4 mm. in diam.; style ca.
2. mm. long

Vesicaria [Lesquerella] lasiocarpa Hook. I don't see that this was properly published in Bot. Mag. Check for inclusion elsewhere.

Specimen bears no mark of origin

① broken stem is 4.5 dm., branched, sparsely pub. with spreading simple or mostly forked trich., radical leaves sessile, at least the upper auriculate, rather deeply lobed, 1.5–4 cm. long, 8–15 mm. wide, ± sparsely pubescent with forked or several-rayed trichomes, more or less appressed; pedicels slender, erect & gently curved downward at extremities, 2–3 cm. long, ± pubescent; siliques linear with long simple ascending hairs; styles on young fruits 1 mm. long.

② Texas, Plotz [No 1663 = 383 fl. hrita, entre Bejar y el rio de la Trinidad mayo 1828]
same species as ①

Lesquerella —— Mancos, Colo, Baker, Earle & Tracy 85
Basal leaves entire, obtuse, 3–6 cm. long, 5–10 mm. wide, silvery, pub stellate with rays distinct, not coarse nor exceedingly fine; pub extends to siliques, 10 stems arising below tufts of leaves-, these unbranched

infrut. 1–6 cm. long; pedicels definitely sigmoid, pub. 1–1.5 cm. long; silique slightly longer than broad, with a very short stipe, valves 0.5 mm., styles 3–5 mm. long, ca. equaling the siliques.

Lesquerella Douglasii – N.W. Coast Am. Douglas

cauline lvs cuneate, sagittate, pubescence medium coarse, stellate, rays numerous; stems decumbent, branched, 3 dm. long; infrut. base 1–1 dm.; pedicels divaricately ascending, straight, slender, [illegible] cm. long; siliques pub., obovate, 5–8 mm. long; styls very slender, 3–4 mm.; ovules ca. 4 per locule. 3 or 4 per locule

trichomes present on interior of valves

Lesquerella gracilis Texas III. n. 13. San Felipe Drummond.

3 sheets in Herb. Kew.

Stems numerous from base, slender, sparsely pubescent with minute stellate irregularly shaped trich. – rays short but simple + distinct almost to middle, spaced; cauline leaves narrowed at base, entire or with a few teeth, linear-oblong to broader 1–3 cm. long, 2–6 mm wide, very sparsely pubescent; infrut. 1–2 dm. long, stems 1.5–4 dm.; pedicels filiform, at right angles, pubescent, straight

fruit with pod ascending, 1–1.5 cm. long; siliques glabrous, globose 2–3 mm. diam., stipitate, stipe 1 mm. long; style ca. 2 mm. long.

British Museum – June 1950

Lesquerella

Specimen marked "Vesicaria globulosa Desvaux Herb. Desvaux dm Schula Tenn[?] < S.S. Mar. 1826." This in what we are calling L. globosa and may be an isotype.

Specimen marked "vesicaria Nuttallii Torr.[?] genus not [?] Red River 1819"
This is peculiar in that it has a silique shaped the little bump is pronounced. The siliques are markedly stipitate, glabrous

L. mendocina

Sierra del plata, prov. mendoza, 5.12.26, D.P. King 119. 2500 M. siliques pub. style 2 mm. There is one plant of another species on the same sheet.

Schizopetalum

S. bipinnatifidum ph. "Talqui or [Talqui] 1884" printed label reads "Temperate South America, Comm. F. Phillippi 1904" Bipinate petiolate basal lvs, densely pub. with branched trichomes, in flower only, buds 8-10 mm. long, sepals densely pub., petals cleft, brownish.

S. bracteatum ph. "Fraipoaje"?, 1893 [Comm. F. phillippi 1904]
Stems several from base, 3.5 dm. high. sparsely pub. with few-branched trichomes, basal lvs sparsely pub. upper also; petioles 1.5-2 cm. long; sepals pub., 6-8 mm., petals almost twice as long. silques glabrous. [photo]

S. biseriatum ph. "Caldera" [exped. F. phillippi + Borders to Atacama, Chile, 1885]
1 dm., stems pub., lvs almost linear, ~~deeply~~ lobed, puberant with branched hairs; petioles ca. 1 cm.; sepals sparsely pub, 5-7 mm., petals twice as long; silques puberent. [photo]

S. dentata Barn. "Chili. - E. C. Reed, 19 may 1875"

lower leaves dentate, pub. with dendritic trich., stems pub. - unbranched, 2 dm.; fls. reflexed, siliques pubescent with dense rather large dendritic hairs. sepals 7-9 mm.; petals almost twice the length.

S. Bayanna Barn. "Trenal, Viña del Mar, Salinas, Valparaiso/ 24/7/82."

stems 1 dm., pub. unbranched; lower lvs. evenly lobed petiolate, pubescent with branched trich., ped. 1 cm. or more [in fl.] sepals pub., nearly 1 cm., petals yellowish brown, nearly twice length of sepals, deeply lobed, 5 mm. across at widest part.

S. superstris Barn. (Parrymondia)

"Baños del Inca, 15/1/86, Phillippi & Borchers.

stems branched, 6-10 cm., pub., lvs petiolate, lobed, densely pub. with branched trich., ped., 3-6 mm. long, pub., reflexed [not strictly]; sepals 7-9 mm., pub., petals ca. twice length; siliques very crooked , densely pub., 1 mm. style, filaments seemingly equal

S. San Romain "desierto de Atacama, 19.1.01
Phillippi.

Brit. Mus.

Hexaptera

H. constitucionis - Matanzas, 1894 [comm. F. philippi 1904]
upper part of stem only — glabrous throughout, lvs linear, narrowing to a petiole - whole leaf 5-7 cm. long; pedicels ascending, 7-9 mm. long, siliques slightly longer than broad, markedly stipitate, winged, style stout, 2 mm. long; outer sepals saccate petals more than 1 cm. long.

H. cuneata var. violacea - Werdermann 219.

H. litoralis "Vina del Mar., 1897" [comm. F. philippi 1904]
Stems 1.5 dm., lvs linear, glabrous throughout incl. sepals & fruit., ped. 3-5 mm. ascending; styles stout 2-3 mm.; sepals yellowish, outer saccate, 6-8 mm.; petals 10-12 mm.

Brit. Mus

Menonvillea

M. angustifolia - "in paucis salsuginosis secus flumen Cachapual, in monte la Leona Rancagua, Chili Oct. 1828 - Herb. Bertero nr. 426 et 1140
This appears to be M. linearis

M. orbiculata "Coquimbo" [Exped. F. Philippi and Borchers to Atacama, Chili, 1885]

Brit. Mus.

Cremolobus

D. mandon 905

Mathewsia

m. auriculata " [Temp. Sr. Amer., comm. F. phillippi, 1904]

Incanus throughout, stems branched 3-5 dm., leaves linear-oblong, 2-4 cm. long, 3-6 mm. wide, auriculate; pedicels divaricate; sepals incanus also siliques, the latter 1-1.5 cm. long, 6-9 mm. wide, style 1 mm. long, stigma unexpanded.

M. incana ph. - " Carrizal bajo" [Exped. F. phillippi and Borders to Atacama, Chili, 1885, det. R. A. phillippi]

Lvs. numerous on stem, linear, tapering to a narrow petiole, 4-8 cm. long, 2-5 mm.

wide, densely pubescent, almost incanous, lost originating in "tufts" along the stem; pedicels ascending, slender, 8-12 mm. long; siliques flat, linear-oblong, young ones over 1 cm. long, stigma sessile.

M. laciniata phl. "Atacama 15-00 p." [Temp. So. Amer. comm. F. Phillippi 1904]
Heavily woody at base and coarse, stem just under 1 cm. thick, branched; leaves very densely pubescent, deeply lobed, auriculate; pedicels ascending 5-7 mm. long; siliqua lanceolate, ca 1.5 cm. long, 4-5 mm. wide, flat, dendy pubescent.

Brit. Mus.

Notes:

Cardamine articulata Pursh = Parrya macrocarpa
R. Br. - Pursh's type in B. M. = P. nudicaulis

Nasturtium indicum = thing Schultz named that

Cardamine cuneifolia Shuttl. - Prope St. Marks
Florida, legit Rugel, apr.-mai, 1843

~~Sisymbrium - Sandy shores of stream, N. A.~~
1825

Arabis * glauca R. Mts = Sisymbrium
glabrous

Cheiranthus * grandiflorus Monterrey = fleshy-leaf
sand-dune plant

Erysimum * pumilum R. Mts. - dwarfed, stems
2-3 cm. long, pub. with malpigh. hairs
leaves linear, siliques 6-8 cm.
straight, styles 1 mm.

Streptanthus * angustifolia R. Mts = Arabis Drummondi typica
Columbia plains

Arabis * macrocarpa = Arabis glabra

Arabis* sparsiflora R. Mts. - ok in my monograph

Streptanthus* virgatus - Sources of the Sweetwater, on high hills. - pubescence fine, leaves linear in flower = A. Holbellii var. retrofracta.

Turritis * spathulata. Columbia woods
= Arabis glabra

Stanleya * heterophylla. R. Mts., Lewis R.
= S. pinnata cauline lvs entire

Stanleya pinnatifida R. Mts.
= S. pinnata

Warea amplexifolia East Florida.
stipe 1 cm., siliques 3-5 cm. long, slightly arcuate

Warea cuneifolia Georgia
in flower, lvs glabrous [only upper cauline present]
1-1.5 cm. long, 4 mm. broad.

*Pachypodium laciniatum Wallawallah
siliques divaricately ascending, stipitate, stipe ca. 2 mm.; siliques terete 3-5 cm., glabrous; pedicels 2-4 mm. long; petals white, narrow

Pachypodium* sagittatum R. Mts. [West side?]
glabrous, stems 6-8 dm.; pedicels 8-10
mm., siliques ca. 2 cm. long

*Hymenoloba divaricata Columbia plains
1 = Hunchinsia

Hymenoloba *erecta columbia plains
= Hutchinsia.

Lepidium integrifolia R. Mts., toward the
Columbia. All bis entire, basal petiolate,
cauline crowded, acute, sessile but not
auriculate, ca. 1.5 cm. long, 4-6 mm. wide
pedicels terete, glabrous or very slightly pub. in very young infl.
divaricate, 1 cm.
long; siliques little notched at apex, glabrous
= alpina Montana groups. Glabrous throughout except for
young infl. incl. sepal which are very sparsely pub.

Lep. *montanum plains of the ~~Pay~~ N. Mts. to
Walla Walla.

Stems branched 1.5-2 dm. high, densely pub.
with minute simple or branched trichomes; basal bis
petiolate, 3-6 cm. long, pinnately lobed, the lobes
ca. 4-6 mm long & 1-3 mm wide, upper cauline bis
entire, lower transitional to basal; infl. corymbed,
infrust. 2-4 cm. long, rachis minutely pub.,
pedicels at right angles, slightly curved, 4-6 mm. long,
pub., siliques ovate to nearly orbicular, ca. 2 mm.
long, glabrous except the very young, style exceeding indistinct sinus

*Phoenicaulis *cheiranthoides hillsides. E. of
~~Arabis~~ W. Wash.
Basal leaves entire, linear, densely pubescent;
pedicels at right angles
or slightly descending, 1-1.5 cm. long, glab.
in fruit; siliques lanceolate 2-3 cm. long;

Dentaria heterophylla phil
Basal leaf detached, trifoliate, lflets oval,
dentate with broad apiculate teeth; cauline
lvs. opposite, trifoliate, petiole 1.5-2 cm.
long, lflets. petiolate - pet = 2-4 mm. long, lflts
linear, entire to sparsely denticulate. pedicels
in fl. 1.5-2 cm long.

Vesicaria *inflata R. River
Basal lvs ovate, obtuse petiolate, entire to slightly dentate
below, pubescent with fairly large, many rayed
trichomes, not peltate; infrescence congested,
siliques glabrous, slightly stipitate.

Vesicaria angustifolia R. River
lower lvs narrow, petiolate, regularly pub. with
spaced very minute disc-like trichomes, 2-4
cm. long, 2-4 mm. wide; lower cauline similar
to basal, upper same but narrower to 1.5 mm.
Stems densely pub., 2-4 dm. high, branched;
pedicels divaricately ascending, pubescent, straight
1-2 cm. long; siliques glabrous, sessile, 2 ovules

per locule, style slender, 3-5 mm. long.
certainly not the plant illustrated by Payson as
L. angustifolia.

V. ludoviciana R. Nels. = L. argentea of Pays.
lower leaves linear, cauline similar, siliques
pubescent, pedicels in fruit slightly arching
ca. 1 cm. long; styles 3-5 mm. long.

Notes made at British Museum - June, 1953

Vesicaria * alpina R. Nels,
stems numerous, basal leaves narrowly linear.
densely pubescent; inflorescence congested, pedicels
divaricate, straight to slightly curved, pubescent,
8-12 mm. long; siliques densely pubescent with
appressed trichomes, ovate, slightly flattened
on margins near style; style exceeding silique
in length., 5-7 mm. long.
R. C. Rollins

Nasturtium * sessiliflorum arkansas
pedicels 0-1 mm. long;

Nasturtium * polymorphum Columbia R.
Stems simple to branched, whole pl. glabrous
or with a few retrorse minute hairs on lower stem.
= plant called "pectinata" by nelson

Nasturtium * lyratum Columbia shores

Sepals persistent, pedicels slender, divaricate, 2-4 mm. long; whole pl. glabrous; basal leaves numerous - from lyrate to nearly pectinate; siliques slightly incurved, immature, ca. 8 mm. long.

Nasturtium cernuum Wappato Island

[Oregon River] upper portion of plant present, the longest 4 dm. high; glabrous throughout; largest leaf 1.5 dm. long, deeply pinnate, the lobes dentate, upper lobes tend to be laciniate; infl. branched, 1 dm. long; pedicels stout, arched downward, 1-1.5 cm.; siliques obovate, style barely showing. Seems to be one of the islandica group but peculiar for that too.

Nasturtium * macrocarpum Columbia shores

lower leaves bipinnatifid, very sparsely pub. with simple trich., esp. along mid-rib; infrut. branched, 0.5 dm. long; pedicels at right angles, glabrous, 2-4 mm. long, slender, siliques ascending, straight to slightly curved, glabrous, 1-1.5 cm. long.

Nasturtium *sinuatum Columbia River & Arkansas

a second specimen on the same sheet is marked "Arkansas" also "Sisymbrium *sinuatum"

① Basal perennial, all lvs sinuate-dentate, cauline petiolate 3-6 cm. long, numerous on stems, plant is in young flower.

② Basal perennial, leaves all similar except very upper most, petiolate, sinuate-dentate, glabrous, very small auricles at base, infl. congested, pedicels slender, 1-1.5 cm. long, at right angles to slightly reflexed; sepals glab., linear-oblong to broader, petals obovate, only exceeding sepals by 1-2 mm; sep. ca. 4 mm. long.

Nasturtium curvisiliqua Columbia shores

Not marked with an asterisk and with note by E. L. S. "not so!!"

The plant looks very much like the one described under ② above except that the siliques & are covered with small scales as is the rachis etc; the stems also have these scales but the leaves are free of them. pedicels divaricate, 8-12 mm. long, siliques ca. 8 mm., straight to rather markedly curved upward, style ca. 1 mm. long.

Draba* brachycarpa Jan. 1819, Arkansas
hk.

D.* cuneifolia arkansas
hk

aizopsis + densifolia [= Draba] R. Mts. Lewis R.
lvs very dense, covering a thick stem, tufted; oblong 4-7 mm. long, 1-2 mm wide; pubescent with simple hairs ca 0.5 mm. long, ciliate stems 3-4 cm (including infrut) trichomes spreading, simple + forked; pedicels covered with forked or branched trich, divaricately ascending 8-10 mm.; sepals with trich similar to pedicels; broadly ovate, flattened parallel to septum, glabrous, style ca. 1 mm. cauline lvs absent

Aizopsis oligosperma (Hook)
B * andina R. Mts. [= Draba]
caudex branched, lvs numerous, all basal, linear, pub. with branched (fairly minte) trich; stem 2-3 cm including infrust pub.; pedicels divaricate, rather stout, pub. 2-4 mm.; silique oval, flattened parallel to septum, pubescent with appressed 2-3 parted trichomes, style 0.5 mm, slender, stigma unexpanded.

Sisymbrium canescens Little Golden River
[Georgia]
= Descurainia

Thelypodium paniculatum R. Uts.
= Arabis - coarse pub. form of A. Holboellii
pub. coarse + dendritic + extends to pedicels
not as coarse as Fendleri or its vars.

Sisymbrium + glandulosum St. Barbara N. Cal.
= Descurainia

Dentaria + californica N. Cal. Monterey
in fruit
Rhizome leaf trifoliate, lflts. nearly orbicular to slightly longer than broad, 3-nerved, petiolules of lflts 0.5 - 1 cm. long, not cordate; cauline leaf similar to basal i.e. trifoliate, all lflts irregularly dentate; pedicels 1.5 - 2 cm. long; siliques 2.5 - 3.5 cm. long, style 1-3 mm.

Iodanthus + lalifolius Arkansas
= Iodanthus

Selenia aurea Arkansas

Stems numerous, glabrous, branched, 1.5-2.5 dm. long; leaves pectinate, lflts narrow 1-2 mm. and often dentate; pedicels divaricate, ascending, 1.5-3 cm. long; mature siliques 1-1.5 cm. long, 6-8 mm. wide, narrowed at base to form a sort of stipe 1-2 mm. long, similarly narrowed above; glabrous, nerveless; style tapering from base to apex, 4-8 mm. long.

Cardamine [A.] pudicaule Florida 1830

Bulb-like corm, 4-5 mm. wide 6-8 mm. high; basal leaf entire, cordate, 1 cm. wide by 3 long, petiole 1.5-2 dm.; stems 3-5 dm. high, glabrous, slender; lower cauline petiolate but small - up to 1 cm. long; upper narrower + not quite sessile, flrs white; pedicels of young fruits divaricate 1.5-2 cm. long; = Cardamine.

Dentaria maxima penn

Only upper part of plant in flower; cauline leaves + reflexed, strongly dentate, lflts subsessile, to 3 cm. petiolule, ovate to oval, glabrous, flr. fairly large, pedicels appressed to reflexed; flower parts spreading. petals probably white

Dentaria *macrocarpa Columbia R.

1 spec. with young fruit.; basal leafs with a very very tenuous connective to rhizome the latter not present; 2 lflts present - these shallowly 3+4 lobed but with an abortive 3rd lflt present. petiolule 3-4 mm., lflts odd-shaped - wider than long. 1.5-2 cm. wide by 1-1.5 cm. long, blunt; cauline leaves trifoliate, lflts linear, blunt, glab., the upper nearly sessile i.e. petiolule 3-4 mm., entire; pedicels 2-3 cm. long.

Dentaria *integrifolia N. Cal. Monterrey

Basal leaf trifoliate, lflts. nearly orbicular, entire to indistinctly dentate, 3-nerved; cauline trifoliate with linear lanceolate divisions, lflts with broad petioles or nearly sessile, stems quite robust 4-5 dm. high; pedicels with very young fruit 2-3 cm.; fls. quite large, petals 10-12 mm. long.

Work like the polyphylls.

Eutrichia *repanda N. Calif. S. Barbara

Only upper stem present with fls.,

Cauline lvs linear, repand, with a sparse scattering of large simple trich., 4-6 cm. long, 8-10 mm. wide; stem hirsute with large white simple trich - not densely so

fls. Thelypodium-like, petals narrow, nearly twice the length of the sepals

Arabis * rupestris Wahlamet & Columbia
= A. hirsuta, var. the columbia river large fl.
Eschscholtzgiana:

Euklisia
[Streptanthus] *heterophyllus
Stems with spreading single trichomes, 7–10 dm. hig; lvs sessile, auriculate, linear, lobed, lobes narrow (1–2 mm) and retrorse, fls + fruits reflexed, sepals purple, pedicels 5–8 mm.

*Streptanthus maculatus Arkansas Territory
glabrous throughout, lvs amplexicaul, ovate-lanceolate, acute, siliques glab. ascending 1–1.5 dm. long; style 2 mm.

Streptanthus *sagittatus Little Golden River

Head of Columbia.

petals white or whitish, with a very narrow claw + an expanded blade 3 mm. across, over twice length of sepal i.e. 1-1.3 cm. long; lvs sagittate - upper lanceolate - lower cauline much broader + wider in middle than at base, whole pl. glabrous.

Leiden

Schizopetalum Walkeri - spec. being borrowed

Cremolobus - Peron, Dombey 618 [Ex herb. mus. paris]

Menonvillea filifolia F. & M. "HLB(?) 1295a
Specimen in flower; leaves linear but not filiform, basal and cauline exactly of the same type; 7-12 mm. long, ca. 2 mm. wide, nearly uniform in width;

Utrecht -

Menonvillea chilensis ✓ (see Notizblatt 1928, P. 466)
Werdermann 835

M. linearis var. virgata phil
Werdermann 28

M. orbiculata phil., ✓ var. parviflora phil.
Werdermann 391

M. orbiculata phil ✓
Werdermann 896

Matthewsia foliosa
Werdermann 27

M. nicaud
Werdermann 442
linear-leaved + not nicaudon

M. nivea
Werdermann 442
bis oblong, nicaudon (Notizbl. 1928. 465-466

Hexaptera:

Cuneata var. violacea
Werdermann 219
Cuneata
Werdermann 949

Schizopetalon rupestre
Werdermann 192
" 947

S. walkeri
Werdermann 443

Herb. De Candolle

Crenolobus

C. peruviana DC. – There is no specimen, but t. 4 of DC dissertation on Biscutella is mounted. This is an engraving. They were pub. under the title "Monographie des Biscutelles ou Lunetières" in "Recueil de Mémoires sur la Botanique" A. P. De Candolle. Paris 1813.

C. suffruticosus "le Peruvia n. 68 Lagasca 1807"

t. 5 of DC. diss. Bisc. is also mounted and is a good representation of the above specimen. Specimen consists of a woody branched piece and an inflorescence separate. The fruits are quite young.

Stem woody, greyish, branched; leaves petiolate, coarsely dentate 2-3 cm. long, ca. 1 cm. wide, glabrous; petiole slightly expanded below, ca. 0.5 cm. long; inflorescence crowded; ped. slender, nearly at right angles, slightly ascending, glabrous ca. 1.5 cm. long; siliqua erect, stipitate, glabrous, wings overlapping, style ca. 3 mm. long.

C. chilensis (B. chilensis Lag.) "ex chile n. 82 Lagasca 1807"

Herbaceous annual, branched, ca. 3 dm. high, glabrous throughout; basal leaves missing, cauline few, sessile or with a short petiole, lvs 2-2.5 cm. long, 0.5 cm. wide; inflorescence a loose raceme; ped. divaricate, slender, 1-1.5 cm. long; siliques pointing the same direction as the ped., stipitate, glabrous;

style ca. 2 mm. long. fls. white (?)

Notes on "monographie des Biscutelles ou Lunetières"
This is separately paged and the date of publication is given as 1811 on the library card in Berlin.
Under § II Biscutellae marginatae
p. 5, no 6.

Biscutella peruviana. tab. IV.

B. siliculis glabris lacvibus margine membranaceo subdenticulato cinctis, apice emarginatis, stylo emarginaturam breviori, foliis ovatis serratis glabris, caule fruticescente.

B. peruviana Lam. Dict 3. p. 620. * Willd. spec. 3, p. 475.

Hab. in Peruvia S. Sussieu; in Chili Dombei h. (v.s.)

Species ab omnibus distinctissima caule fruticante et stylo brevissimo intra siliculae emarginaturam inclusa, siliculae magnitudine samarae ulmi.

7. Biscutella suffruticosa tab. V.

B. siliculis glabris lacvibus margine membranaceo subdenticulato cinctis, stylo siliculae apice ix emarginatae longiori, foliis ovatis serratis glabris, caule suffruticoso.

Hab. in Peruvia. Dombei. Bargasca h (v.s.)

etc.

8. Biscutella chilensis tab. VI

B. siliculis glabris lacvibus margine membranaceo subdenticulato cinctis, stylo siliculae non emarginata longiori, foliis oblongis subserratis glabris, caule herbaceo.

B. chilensis. Lagasca in litt.
planta tenuis glabra herbacea parce ramosa e
radice parva subsimplici orta; folia oblonga, acuta;
racemi fructiferi valde elongati; pedicelli distantes;
siliculae in stylum productae, ceterum sat similes
fructibus B. suffruticosae a qua differt caule
herbaceo annuo.

To borrow from Geneva
Crem. peruviana

Notes from general herb at Geneva

Cremolobus

C. humilis – A. Weberbauer no. 3097. dept. Ancoulis(?) prov. – Huaylas (?) Cordillera negra, 4300 m. über Caraz. 1906. Peru

Herbaceous annual 3–6 cm. high, ~~glabrous throughout~~ hir. sericle, 1–1.5 cm. long, 1 cm. wide, dentate, few; inflorescence beginning near base, not crowded; pedicels divaricate to nearly at right angles, stoutish, ca. 1 cm. long; siliques stipitate, ~~styles~~ winglees or nearly so, styles 1 mm. long;

Not a very good match for Macbride & Featherstone 601 because of shorter, less recurved pedicels, shorter style and winglees fruits. There are no markings at base of fruit which is light throughout & only slightly scalloped. It also appears that the petals taper here but not in the M. & F. specimen.

C. parviflorus – Mandon 905

C. Paysonii – H. E. Stark 11441
Macbride & Payson 211

~~Fo tobacco form~~

C. pinnatifidus
Macbride & Feath. 428; 84; 696; 557; 467.

C. stenophyllus – A. Weberbauer 5335

C. Weberbaueri – A. Weberbauer 5256

Hexaptera:

H. cuneata - Wagenknecht 18124
all H. being borrowed

H. auriculata -
Wagenknecht 18409

H. nivea - E. Werdermann 422

Menonvillea:

M. chilensis - Worth & Morrison 16137

under M. linearis
Wagenknecht 18116; Wagenknecht 18551;

M. orbiculata phil, var pauciflora phil
Worth & Morrison 16177

M. pinnatifida
Worth & Morrison 16393

Schizopetalum

S. rupestre - Wagenknecht 18498
E. Werdermann 192

S. Walkeri - Worth & Morrison 16193

Notizblatt at Geneva

Bd XV no. 1 thru VII – Mattfeld claims that in all that was published. They have them all printed.

Bot. Jahrbucher:

Bd. 74 – Heft 1, p. 1-172 march 1947.

Heft 2 - p. 173-348. Feb. 1949.

Heft 3 - p. 349-510. Aug. 1949.

Heft 4 - p. 511-633 Nov. 1949.

Kukenthal on Rynchospora } etc with Am. pl.
Irmscher on Begonia
described.

Bd. 75 Heft 1 received in Geneva 27 July 1950

Mitteilungen der Thüringischen Botanischen Gesellschaft
(ehemals Thuringischen Botanischen Verein)
Band 1, Heft 1 1-167. 1949
Weimar. edited by Kurt Branco
Heft 2; 1-107. 1949.

Fedde Rep. Spec. at Geneva

51 in 1942

52 in 1943 - heft 1, 2, 3

53 in 1944 - heft 1, 2, 3

54 in 1944 - only heft 1

Beihefte: Floristic Fl. biochem. Floristic Floristic
124, 125, 127, 128, 129

are all at

Rev. Sud. Bot — Hauman

Vol. VI 1-2, 1939; 3-4, 1939; 5-6, 1939;

↑ paper by Trelease, W. on Peperaceae

Trelease in vol. VI, no. 3/4 of 1939

p. 66

Peperomia Herteri Trel., sp. nov.

P. uruguayana Trel., sp. nov.

P. tacuariana Trel., sp. nov.

p. 67

Peperomia Berroi Trel., sp. nov.

P. albolineata Trel., sp. nov.

W. B. Herter in vol. VI, no. 3/4. 1939.

p. 91 Novae ser Cactaceae

Croton Arechavaletai Hert. ex Arech. in An. Mus. N. Mont. II, 1, p. 80, 1911; Rev. S. Am. Bot. III (Additamenta II), p. 164, 1936; ssp. bicolor Herter in Flora II, p. 79, 1930, nomen. — [Then the ssp. is described in latin.

Croton Herteri Arech. l.c. p. 73, 1911, etc.

var. α molliccimus Hert. — descr. in latin.

var. β Harmsianus Hert.; Cr. Herrmanni Hert. ex Arech. l.c. p. 77, 1911.

var γ subcanescatus Hert. — latin

P. 92 Paxiuscula Hert. loco loco; Paxia Hert in Flora II, p. 80, 1930, nomen, non Eily 1897. — Latin. dipg. — Ditaxis sect. 5 Arcuatae. Pax + Hoffm. Pflanzenfam. — — Typus: Paxiuscula arcuata Hert.

P. 93 Paxia arcuata Hert. in Flora II, p. 80, 1930, nomen [Ditaxis arcuata Hert. ex Busch. l.c., p. 79, 1911].

Paxia obliquata (Pax + K. Hoffm.) Hert. in Flora II p. 80, 1930, nomen [Ditaxis obliquata (Pax + K. Hoffm.)]

Paxia secundaria (Pax + K. Hoffm.) Hert. in Flora II p. 80, 1930, nomen [Ditaxis secundaria (Pax + K. Hoffm.)]

Phyllanthus stenogynoides Hert. sect. nov. Lith. gynoecium Mitte Aug. von Intsgrad] Hoffm. [illegible] "puta"

Tragia [illegible] sp. [illegible], n. sp. — Latin.

P. 94 Schinus chebataroffii Hert. loco loco — Sch. lentiscifolius Chebataroff in Bot. d. Am. Bt. V, p. 37-39, fig. 1, 3 & 2 A, 1937, non March.

(Latin diag.)

P. 96 Statice brasiliensis forma altior Hert. in Bot. J. Am. Bt. IV (all. + III) p. 181, 1937. [Latin diag.]

[illegible] P. 181, 1937, nomen [illegible]

[illegible] alba Hert. [illegible] [Latin diag.]

P. 96 Hypoderma [illegible] Hart. in Linn. Trans. [illegible]

P. 97 Hypoderma [illegible] Hart. in Linn. Trans. [illegible]

P. 100 Sarcophaga [illegible] Hart. in Linn. Trans. [illegible]

P. [illegible] Sarcophaga [illegible] Hart. in Linn. Trans. [illegible]

P. 101 Sarcophaga [illegible] Hart. in Linn. Trans. [illegible]
Sarcophaga [illegible] Hart. in Linn. Trans. [illegible]

P. 102 Sarcophaga [illegible] Hart. in Linn. Trans. [illegible]
Sarcophaga [illegible] Hart. in Linn. Trans. [illegible]
Stomoxys [illegible] Hart. in Linn. Trans. [illegible]

P. 103 Anthomyia [illegible] Hart. in Linn. Trans. [illegible]

P. 105 Eristalis [illegible] Hart. in Linn. Trans. [illegible]
Syrphus [illegible] Hart. [illegible]
Syrphus [illegible] Hart. [illegible]

(Li. Sum. to mat. Flora)

Pan. Sect. Am. Bot. vol. 5/6 1940

W. A. Hoff

P. 130 Mougeotia Ciliata Hoff. sp. nov.
[Lectotype]
Mougeotia [illegible] (Fac.) Hoff. [Polypod microtypic]

P. 131 Mougeotia subgenuflexa (L.) Hoff.
[Conferticolum polymorphum L.]

P. 134 Closterium Kochii Hoff., sp. nov.
[illegible]
Closterium parvulum Hoff. sp. nov.
[illegible]

P. 136 Scenedesmus Fragilis Hoff. sp. nov.
[illegible]

P. 137 Pleurotaenium Ehrenbergii Hoff. sp. nov.
[Lectotype]

P. 138 Pleurotaenium Schmidtii Hoff. sp. nov.
[Lectotype]
Pleurotaenium Polygonia Hoff. sp. nov.
[illegible]
[illegible] Pleurotaenium [illegible]
Hoff. [illegible]
[illegible]

P. 140

P. 145

P. 149

P. 154

p. 15: Schaffner [illegible] [illegible], [illegible] Einleitung.
Schaffner [illegible] [illegible] [illegible] Einleitung.

Beiträge zur [illegible] der [illegible]
von H. [illegible]

[illegible]
from 'Die Bibliographie[illegible]' Dec., 1937.

[illegible]

[illegible]

[illegible] [illegible], S. [illegible] Vol. VII, no. 1 pp. 1-[illegible], 19[illegible]
[illegible]

2/4 - pp. [illegible] [illegible]
5 - pp. [illegible] [illegible]
6/[illegible] pp. [illegible] [illegible]

Vol. VIII: 1-2 = pp. 1-27 [illegible] 1939.
1-2 - pp. [illegible] [illegible]
3 - pp. [illegible] [illegible]
Vol. IX 1 = pp. 1-[illegible], 19[illegible] [illegible]

Herb. Edmond Boissier - Genève

Schizopetalum Walkeri

"la Vinna de la mar" - Valparaiso, Chile · Sept.

1830 - Herb. Bertero nr. 1786

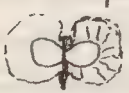
Herb. Mus. Paris

Cremolobus pinnatifidus — Wilkes Exped. 1838-42
Peru.

C. suffruticosus — Chili, Dombey 619 (Type.)
There are three sheets all seemingly of the Dombey collection. ~~The~~ On one sheet appear the notation Chili ~~and~~ et Peron but they spec. have to be from one or the other. My guess is Chili because that alone appears on the specimen that De Candolle actually annotated.
The lower portion of the specimens show a semi-woody quality - rather soft + punky as if from under-ground or something. At any rate, I doubt if the plant was a tall woody shrub. The leaves and all suggest a maritime situation.
longest stem = 4 dm. glabrous; leaves probably fleshy, thickish but not markedly so, glabrous, dark green to blackish, petiolate, dentate, 2-4 cm. long, 1-2 cm. wide; raceme 1-2.5 dm. long. crowded; slender pedicels divaricate, nearly straight, 1.5-2 cm. long; silicles nearly erect, stipitate, indiv. fruit ca. 4 mm. in diam, glabrous, wing ca. 1 mm. wide, crenate dentate; style 3-4 mm. long.

C. peruvianus — peron, D. Joseph de Jussieu in Herb. Lamarck - Herb. mus. Paris.

Longest stem ca 4 dm. long, branched in the flowering portion, branches subtended by leaf-like bracts; leaves cuneate at base with a very short petiole 2-4 mm. long; lvs. leathery, oblong, serrate-dentate, acute, glabrous, conspicuously veined below, and slate-colored; vegetation not so evident above, brownish; lvs 1-3 cm. apart often with smaller lvs of branch-growing joints in their axils; siliques crowded in dense infrutescences 3-5 cm. long; pedicels divaricate, slightly arched, minutely pub. with short simple trichomes as are the infl. branches; ped. ca. 1 cm. (0.5-10 mm.) long; siliques stipitate, wing-fruit complex at right angles to replum;



The following specimens at Herb. Paris are the same species — all from (Peru) Equateur

1. Eablahuaic, 21-5-1931, R. Benoist 4329.
2. arbuste à fleurs blanches
   Forêt au Versoura de San Juan
   16-2-1930, M.R. Benoist 2023
3. Vallée de Loloa, 23-4-1931, M.R. Benoist 4261.

Herb. Mus. Paris

Menonvillea

M. linearis — Pérou, Dombey (type)

Root + caudex somewhat fleshy, branches covered with old leaf-bases, caudex branches 0.5 – 1.5 cm. thick; basal leaves linear, entire to deeply toothed, glabrous flat, 4 – 7 cm. long, acute, somewhat in tufts at the junction of stem + caudex; stems simple or branches, hollow, herbaceous, longest stem 6 dm. high; cauline lvs similar to basal, few, slightly over-lapping; 2 – 3 cm. long; infl. congested; pedicels ascending to somewhat divaricate, slender, nearly straight, slightly pubescent, 0.6 – 10 mm. long; axis of inflorescence definitely pubescent with simple crinkled hairs; silicues stipitate; small scales present over the seed vesicle, style stout, 2 – 3 mm. long; petals brownish, narrowly linear, ca. 1 cm. long; sepals glabrous, outer pair markedly saccate.

lvs. linear-lanceolate

Other spec. which seem to match type in all imp. char.

Dombey no. 620 – the trifid basal lvs on one plant a thick not important.

M. Cl. Gay, 1839, Chili – shows transition to what has been called M. filifolia.

Pöppig 164 "los Chorillos" ad concon.,
Chile. fl. sept.

Poeppig, Chili borealis

lvs. linear

Di. Guillemin 1842, Chili - lvs. linear

D. Bertero, Valparaiso, Chili, 1830, in loca maritimis - lvs linear-lanceolate - maritime form.

Gay 160, "in arenosis maritimis" aug. 1829, [no. 2 in Flor. de Chili; I, 183). maritime form. lvs. thick & linear-lanceolate

M. Bertero 426, Chili, Lupascui herbidis montium prope la punta de Cortes, Octobre, 1829. - linear lvs - some cauline deeply lobed. [another sheet from Herb. Richard bears the notation "Delear. &c. Sel. t. 56"]

M. robustula - "in rupestribus calidis maritimis Valparaiso, Chili. Novbr. Decbr. 1828. Herb. Bertero nr. 1145" [Herbarium Steudel] on another hand is "Menonvillea robustula Steud." This is the maritime form of M. linearis - with linear-lanceolate basal & cauline lvs and with the cauline lvs. in tufts on the stem & infl. markedly congested. The cauline lvs are entire, 10 - 15 cm. long and 2 - 8 mm. wide.

M. linearis var. trifida Steud [Herbarium Steudel] in pascuis rabulosis secus flumen Cachapual, in monte la Leona Rancagua, Chili. Octbr. 1828. Hrb. Bertero nr. 426 et 1140 [also have been drawn from the numbers]

Very similar to the type of M. linearis except for the trifid - really deeply linearly lobed cauline lvs. The basal appear to be

M. linearis var. β remota [in Fl. chilensis] - Chili, M. Cl. Gay, 1839. very similar to the above -

M. linearis var. laciniata [in Fl. chil.] - Valparaiso 1830. D. Bertero 1145. This appears to be the maritime form of M. linearis - the leaves somewhat trifid. Stem decumbent. - I think the stem getting covered with sand is an imp. factor in producing fasciled? lvs in this maritime form.

M. linearis var. parviflora [in fl. Chilensi]

Lwar - Calchaque "in meridie stelp. Calchiriguin [can't read the letters] Febr. 1831 Chili. F. Bagattique?

This specimen has rather short petals + smaller fls. than the general run of M. linearis. Otherwise it looks similar.

M. trifida - Cordilleras de Maules, Chili ann. 1855 - Rec. Ph. Germain

very similar to M. linearis except for the lobed cauline leaves.

M. filifolia -

Chili, Gay 1833. This is the same as the linear-leaf material listed under M. linearis

Chili, Dr. Urville " " " "

Chili, Bertero - Tancagua [in fl. chilensi] Barn. in Gay Fl. Chil. I, 184, - as the two specimens above.

In pascuis jabulosis provincia Rancagua Chili Herb. Bert. nr. 426 [Herb. al. de Bunge] Same as above.

M. pinnatifida. Prov. de Coquimbo, M. Cl. Gay 1839, nr. 332. [2065 m.] Type

Stems gypsose, branched from base + above, 3-5 dm. high, whitish tomentose, the tomentum thin + easily rubbed off. Lvs. def. pinate, the basal with a broader (3-4 mm.) rachis than the cauline. lvs pectinate; densely pubescent with whitish tomentum; infl. gypsate 0.5-1.5 dm. long; pedicels arising at bend, glabrous 3-5 mm. long; silipes nearly orbicular, wing less than 1 mm., ridges over seed and scales present, style 1-1.5 mm. long.

3 sheets of same no. present at Paris

Herb. Paris

Hexaptera

H. cuneata

① Cordilieres de Santiago, ~~Chile~~ Chili, ann. 1856 et 1857, Rec. Ph. Germain

② Prov. de Coquimbo, M. Cl. Bay 336; 1838 3 sheets

③ echantillons des cordilieres de los patos, annexe. Mendoza Chili. M. Cl. Bay.

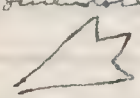
④

H. Jussiaei —

Prov. de Coquimbo, Chili; couché les pierres des hautes cordillères. fleurs blanches. fleurit en janvier. hauteur 4000 m. - rare. M. Cl. Bay 500; 1839

Stems several from a creeping stem, apparently from between rocks etc.; leaves crowded; cuneate, much broader at apex than in H. cuneata; lvs. rather hirsute rather than softly pub. (Tomentose) as in H. cuneata. - hairs separated

1



and somewhat coarser than cuneata. 1–1.5 cm. long; 0.5–1.5 cm. wide; infl. congested, up to 0.5 dm. long; pedicels numerous, straight, ascending, hirsute, 0.8–1.5 cm. long; petals spatulate; siliques broadly oblong, ca. 1 cm. long, 0.8 cm. wide; wing 2–3 mm. wide; style

4-6 mm. long; siliques glabrous, without scales or ridges over the seed. wings only 4.
2 sheets

H. linearis — this is certainly Menonvillea
Prov. de Colchagua, Chili; dans rupestris.
Talcaregué, februar a 1831, rara
Type
The collector was F. Caballtigue or something like that.
Stems 2-4 dm. high, stiff, glabrous; very similar to Menonvillea linearis except ~~for~~ for the extra wing over the seed on each side. However this is present on some specimens of M. linearis as for example Chili, Bertero.

H. littoralis — Type - prov. de Coquimbo, Chili, M.Cl. May 63, 1839; fleurs blanches; dans les tables du cord. de la mar.
✓

annual, low linear, entire to few - usually 3-lobed, the lobes linear; 1-4 cm. long, 1-2 mm. wide; stems branched, 0.5 to 2 dm. long, glabrous; infl. 2-4 cm. long; pedicels ~~filiform~~ slender, divaricate to ascending; glabrous ~~to~~ 0.5-1.2 cm. long; siliques stipitate, orbicular, wing prominent to almost

obsolete, up to 1 mm. wide; prominent mound formed by seed, glabrous; style stout, 2–3 mm. long.

(1) Prov. de Coquimbo, Bridges 1279, 1866 [Bay Fl. Chili] is a similar plant but the pedicels are shorter, stouter and spaced further apart; also the infruct. is much more elongated, 3.5–4 dm. long; the fils. are longer and the siliques have numerous scales over the seed area. = M. chilensis

H. curvata

(1) In frigidis regestibus andium, Amering. Merrdle Chili 1831, M. Cl. Bay 373.

Similar to above but with shorter fuscous hairs, smaller more sharply lobed leaves and shorter pedicels. Could be a different species.

(1) In regionibus andium o della, Chili, 1829, M. Cl. Bay 496 [H. pimulifolia var. A.-rufo-tomentosa Barn. in Flora Chilena]

(2) Cordillera de Maule, ann. 1856 et 1857, Rec. Ph. Germain

Schizopetalum

S. walkeri ① in arena mobile ad maris setus loco dicto la vina lamar, 1829 1830, Valparaiso Chile, D. Bertero 1786.

② copiose in montib. maris., Chili, fl. octbr., Pöppig 168

③ in arenalis maritimus Chili, aug. 1829, m. Cl. Gay 162. [Barn. in Bay. Fl. chili I, 145]

Mathewsia

M. foliosa

① Coquimbo, entre les rochers du Cord. de la mer, Chili, 1839, Gay 58.

② in rupib. maxit ad concon., Chili, aug. Pöppig 166 [Cheiranthus incisus Ktz.]. This is good M. foliosa.

③ Valparaiso, Chili, 1830, M. Bertero 1296. [in fruticetis rupestribus mari proximis]

④ Valparaiso, ann. 1856 et 1857, Ph. Germain

⑤ M. foliosa var. d Barn. in Gay, Fl. chil. I, 153. Prov. de Coquimbo, Chili, m. cl. Gay, 1838.

M. matthioloides [Machaerophorum] cf spec. deriv. from Kew.

W. Lechler pl. peruviana. Ed. R. F. Hohenacker 1702. In rupestre. Cord. de Juno. maio m. Lvs. pectinate, segments & rachis linear, minutely pubescent. Stems strikingly zygote above

M. incana

Prov. de Coquimbo, Chili, 1866, Baidyer 1280; pl. incanum including siliques; pedicels at right angles to rachis, ca. 1 cm. long; caul. lvs. clasping at base slightly; claw of petals very slender, blade much expanded

Committee on Nomina Generica Conservanda:

Phanerogams

Ham — ~~Wilder~~

Mansfeld — Van Steenis

Rickett — Pichi Sermolli.

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